

An experimental design method for evaluating usability factors of the rechap process model

Abstract:

The ultimate aim of this research is to facilitate software users and engineers in implementing the rigorous process of requirement change and propagating the identified impacts to the software design elements. The proposed approach known as ReChAP, aims to simplify the tedious and error-prone process of change propagation for upstream abstraction and high-level requirement changes to support requirement change management throughout the whole software lifecycle. In particular, the foundations of ReChAP approach are available in twofold: product metamodels (theoretical specification) and process models (implementation specification). Therefore, the main objective of this paper is to design the synthetic experimentation to be conducted; including its procedures and guidelines to be used in performing the planned experimental activities. As a result, the observation findings from this experimentation is hoped to be practical in evaluating the usability quality factor of the two aspects: the proposed process models and the preliminary version of the ReChAP tool.